FLYING SPIDERS

By J. S. PHILLPOTTS *

"Up came a big spider
And sat down beside her
And frightened Miss Muffett away."
Traditional Nursery Rhyme

The question is how did the spider come to be there in the first place. They have a wide range of habitat from the cosy corner of a ceiling to remote rocks in the ocean and are found high in the atmosphere in conditions too cold for any insect which needs to use its wings.

I have always taken the dew laden gossamer silk threads which one often sees glistening on a field of long grass on an autumn morning to be draglines, not flying equipment, but I may be mistaken. I have not observed small spiders let out a line of silk to be caught by the breeze and cutting themselves free, with this strand to support them in flight. But I have observed a different procedure.

Lying in my hot bath one evening, I noticed a tiny spider on the hot tap. It lost its footing, fell a few inches, recovered itself and to my relief climbed back to the tap. But, horrors, it fell again and yet again till it had miraculously saved itself from death five or six times. Then, having apparently cut all its loops of web loose, and holding on to this little parachute, it floated up with the steam to the ceiling and safety!

This was the most dramatic display put on by a dare devil flying spider. The first one I saw take off climbed to the top of a sloping, dead grass stem on a beautiful autumn afternoon on Brimsdown at Brixton Deverill in Wiltshire, when a light south west breeze blew up the slope where we were picnicking, facing the sun. Again, this little spider seemed to lose its footing and kept falling, perhaps some four or five inches, and again freed itself and took off up the slope in the gentle wind.

The last one was a much bigger spider, of perhaps one centimetre leg span, which followed the same procedure on the outside of my north facing window pane when there was a light easterly breeze. It also flew away successfully.

In every case the spider seemed so accident prone that I quite failed to realise what it was about until too late to count the number of falls or estimate their length, but it does appear that this gives a more compact and practical parachute than the long trailing strand more often described. It would be interesting to know more about the species which practise the different procedures, the largest spider which can fly and the necessary wind speeds. They are equip-

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ped with trichobothria hairs to detect wind currents. Mine certainly were good judges of the right conditions, there were no failures or false starts. In each case the wind speed was between 1 and 3 on the Beaufort Scale and the temperature between 15°C and 25°C. One great advantage they have over insects is that they can parachute high into the atmosphere where the low temperature would immobilise an insect, but they survive in a torpid state carried passively by the upper air currents, and with their powers of withstanding prolonged starvation, can cross the widest oceans. In fact many spiders are common to different continents, some carried by man, others for palaeological reasons, but some borne on the winds, where they fall prey to insectivorous birds, but some reach a congenial habitat and multiply. Unlike birds and butterflies, however, they are too small to be noticed and recorded, though they must often be raining down unseen. Maybe some are carried on birds' bodies, if they are not picked off and eaten, but this must be uncommon.

Summary Small spiders from temperate regions can be carried, passively, high in the atmosphere where insects cannot fly and in this way be transported enormous distances.

It is suggested that a number of loops of silk may be more often employed to form a parachute than one long strand. In the former case the weight of the spider's body is utilised to draw it out.

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THREE RARE MIGRANT SPECIES IN 1984 AT HAM STREET, KENT, INCLUDING SEMIOTHISA SIGNARIA HBN. – The evening of the 31st July 1984, in Longrope, Orlestone Forest, Ham Street, began rather cool and clear, but as the night wore on the temperature rose a little and by 1 a.m. (1st August), as well as many local specialities I had taken at m.v. light slightly worn single specimens of *Semiothisa signaria* Hbn. (female) and *Trisateles emortualis* D. & S. (male). My companion, Julian Abbott was rewarded with a splendid fresh *Enargia paleacea* Esp.

At the time of writing, 10 days later, the *S. signaria* lives on, being frequently supplied with honey and water and is ovipositing freely. Already 22 larvae have hatched and these have taken readily to Douglas Fir and Larch. With luck I shall issue further notes on their development in due course. – J. FENN, 4 Pearce's Close, Hockwold, Thetford, Norfolk IP26 4LU. [This is only the second record of occurrence in Britain of *S. signaria*, the first being that of a male taken in Essex on 20th June 1970, by R. Tomlinson (cf. *Ent. Rec.*, **86**: 195, plt. XVI, fig. 3). – J.M.C.-H.]